WHAT IS CLAIMED IS:

1. A resolver stator comprising:

a stator coil including a plurality of winding portions each wound around a magnetic pole via ring-shaped insulation caps, the stator coil being impregnated with a liquid or melted resin and fixed to the magnetic poles by curing the resin,

wherein the resin is softer than an epoxy.

- 2. A resolver stator according to Claim 1, wherein the resin is silicone.
- 3. A resolver stator according to Claim 1, wherein a peripheral part of one of the ring-shaped insulation caps is provided with a plurality of terminals, wire ends of the stator coil are each wound around one of the plurality of terminals such that each wire end and the terminal form a winding-connecting part, and the wire end and the terminal are fixed to each other by soldering or fusing at one portion of the winding-connecting part and are independent from each other at the remaining portion of the winding-connecting part such that the wire end disposed in the remaining portion of the winding-connecting part is formed as a free wire end.

- 4. A resolver stator according to Claim 2, wherein a peripheral part of one of the ring-shaped insulation caps is provided with a plurality of terminals, wire ends of the stator coil are each wound around one of the plurality of terminals such that each wire end and the terminal form a winding-connecting part, and the wire end and the terminal are fixed to each other by soldering or fusing at one portion of the winding-connecting part and are independent from each other at the remaining portion of the winding-connecting part such that the wire end disposed at the remaining portion of the winding-connecting part is formed as a free wire end.
- 5. A resolver stator according to Claim 3, wherein the free wire end is wound around the terminal at least once.
- 6. A resolver stator according to Claim 4, wherein the free wire end is wound around the terminal at least once.
- 7. A resolver stator according to Claim 3, wherein the free wire end is wound around the terminal a plurality of times.
 - 8. A resolver stator according to Claim 4, wherein the

free wire end is wound around the terminal a plurality of times.

9. A resolver stator according to Claim 3, wherein the free wire end has a resilient function and slack.